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G-000-103.7

**RCRA VIOLATIONS AND GROUNDWATER
MONITORING INSPECTION FOR PIT #4**

09/19/88

**DOE-1407-88
DOE-FN/WEMCO
6
LETTER**



Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831 -

3634

September 19, 1988

DOE-1407-88

President
Westinghouse Materials Company
of Ohio
P. O. Box 398704
Cincinnati, Ohio 45239-8704

Dear Sir:

RCRA VIOLATIONS AND GROUNDWATER MONITORING INSPECTION FOR PIT #4

Reference: Letter, Chul Kim-McGuire of OEPA to James A. Reafsnyder, dated September 6, 1988.

Attached for your information is a copy of the referenced letter along with the RCRA Subpart F - Groundwater Monitoring inspection report for Pit #4. The letter stated that USDOE FMPC is now considered to be in compliance with the State and Federal Hazardous Waste Rules and Regulations pertaining to violations cited in the inspection letter dated July 29, 1988.

If you have any questions or comments, please contact Mary Stone of my staff at extension 6656.

Sincerely,


James A. Reafsnyder
Site Manager

DP-84:Stone

Attachment: As stated

cc w/att.:

G. E. Baker, WMCO - Sent.

cc w/o att.:

S. Schneider, WMCO
T. A. Poff, WMCO
J. M. Carr, WMCO
W. G. Razor, WMCO



State of Ohio Environmental Protection Agency

Southwest District Office

40 South Main Street
Dayton, Ohio 45402
(513) 449-6357

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September 6, 1988

Re: USDOE FMPC
HAZARDOUS WASTE MANAGEMENT
OH 689 000 8976
HAMILTON COUNTY
GENERATOR - TSD (STORAGE)Richard F. Celeste
GovernorMr. James A. Reafsnyder
Site Manager
Department of Energy
P.O. Box 398704
Cincinnati, Ohio 45239

Dear Mr. Reafsnyder:

Documents from your office were received by Ohio EPA - Southwest District Office on September 1st. The documents sent pertained to violations cited in an inspection letter dated July 29th.

Violations 1 thru 11 have now been corrected. As mentioned in the letter of the 29th, an inspection of the Pilot Plant Warehouse was scheduled for the future. Due to recent concern over the possible exposure to radionuclei to couple of USEPA officials who have visited the site, a physical inspection was not conducted. However, a review of the inspection records for the warehouse shows that containers that have had problems with corrossions have been corrected to date of August 26th.

Rich Bendula, from this office, completed the RCRA Subpart F - Groundwater Monitoring inspection for Pit #4. Please find enclosed photocopies of the inspection form that was used.

USDOE FMPC is now considered to be compliance with the State and Federal Hazardous Waste Rules and Regulations pertaining to violations cited in the inspection letter dated July 29, 1988.

Sincerely,

Chul Kim-McGuire
Division of Solid & Hazardous Waste Managementcc: Dave Sholtis, CO, DSHWM
Jack Van Kley, AGO
Wayne Hibbitts, USDOE, Oak Ridge

SEP 07 1988

Date Rec'd
Log B-22-14
File 2
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RCRA INTERIM STATUS INSPECTION FORM

SUBPART F: GROUNDWATER MONITORING

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Type of facility: (check appropriately)

- a) surface impoundment
- b) landfill
- c) land treatment facility

Yes	No	Unknown	Waived
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

NOTE: UNDER INTERIM STATUS STANDARDS A WASTE PILE IS NOT SUBJECT TO GROUNDWATER MONITORING REQUIREMENTS. PLEASE NOTE, HOWEVER, THAT IF ANY HAZARDOUS WASTE FROM A WASTE PILE IS LEFT IN PLACE AT CLOSURE, THE "WASTE PILE" BECOMES A "LANDFILL" AND MUST MEET POST-CLOSURE RULES APPLICABLE TO LANDFILLS.

Groundwater Monitoring Program

1. Was the groundwater monitoring program reviewed prior to site visit?
If "No",

☒ ☐

a) Was the groundwater program reviewed at the facility prior to site inspection?

☒ ☐

2. Has a groundwater monitoring program (capable of determining the facility's impact on the quality of groundwater in the uppermost aquifer underlying the facility) been implemented?
265.90(a) [3745-65-90(A)]

☒ ☐

Appropriate wells installed under RI/FS waiting on results of 1st round.

3. Has at least one monitoring well been installed in the uppermost aquifer hydraulically upgradient from the limit of the waste management area? 265.91(a)(1) [3745-65-91(A)(1)]

☒ ☐

a) Are groundwater samples from the uppermost aquifer, representative of background groundwater quality and not affected by the facility (as ensured by proper well number, location and depths)?

☐ ☐

Waiting on results at this time.

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4. Have at least three monitoring wells been installed hydraulically downgradient at the limit of the waste handling or management area? 265.91(a)(2) [3745-65-91(A)(2)]
- a) Do well number, locations and depths ensure prompt detection of any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer?
5. Have the locations of the waste management areas been verified to conform with information in the groundwater program?
- a) If the facility contains multiple waste management components, is each component adequately monitored?
6. Do the numbers, locations, and depths of the groundwater monitoring wells agree with the data in the groundwater monitoring system program? If "No", explain discrepancies.
7. Well completion details. 265.91(c) [3745-65-91(C)]
- a) Are wells properly cased?
- b) Are wells screened (perforated) and packed where necessary to enable sampling at appropriate depths?
- c) Are annular spaces properly sealed to prevent contamination of groundwater?

Yes No Unknown Waived

✓ —

✓ —

✓ —

— N/A —

✓ —

✓ —

✓ —

✓ —

Original wells
cased with PVC, but
all RI/FS wells are
stainless steel.

Test pit wells
questionable but
new wells are
acceptable.
See 76.

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	<u>Yes</u>	<u>No</u>	<u>Unknown</u>	<u>Waived</u>
8. Has a groundwater sampling and analysis plan been developed? 265.92(a) [3745-65-92(A)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Has it been followed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Is the plan kept at the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Does the plan include procedures and techniques for:				
1) Sample collection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2) Sample preservation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3) Sample shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4) Analytical procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5) Chain of custody control?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Are the required parameters in groundwater samples being tested quarterly for the first year? 265.92(b) [3745-65-92(B)] and 265.92(c)(1) [3745-65-92(C)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Are the groundwater samples analyzed for the following:				
1) Parameters characterizing the suitability of the groundwater as a drinking water supply? 265.92(b)(1) [3745-65-92(B)(1)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2) Parameters establishing groundwater quality? 265.92(b)(2) [3745-65-92(B)(2)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3) Parameters used as indicators of groundwater contamination? 265.92(b)(2) [3745-65-92(B)(3)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(1) For each indicator parameter are at least four replicate measurements obtained at each upgradient well for each sample obtained during the first year of monitoring? 265.92(c)(2) [3745-65-92(C)(2)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	<u>Yes</u>	<u>No</u>	<u>Unknown</u>	<u>Waived</u>
(11) Are provisions made to calculate the initial background arithmetic mean and variance of the respective parameter concentrations or values obtained from the upgradient well(s) during the first year? 265.92(c)(2) [3745-65-92(C)(2)]	<u>✓</u>	—		
b) For facilities which have completed first year groundwater sampling and analysis requirements:				
1) Have samples been obtained and analyzed for the groundwater quality parameters at least annually? 265.92(d)(1) [3745-65-92(D)(1)]	<u>✓</u>	—		
2) Have samples been obtained and analyzed for the indicators of groundwater contamination at least semi-annually? 265.92(d)(2) [3745-65-92(D)(2)]	<u>✓</u>	—		Conducting quarterly monitoring under site-wide RI/FS
c) Were groundwater surface elevations determined at each monitoring well each time a sample was taken? 265.92(e) [3745-65-92(E)]	<u>✓</u>	—		
d) Were groundwater surface elevations evaluated annually to determine whether the monitoring wells are properly placed? 265.92(f) [3745-65-92(E)]	<u>✓</u>	—		
e) If it was determined that modification of the number, location or depth of monitoring wells was necessary, was the system brought into compliance with 265.91(a) [3745-65-91(A)]? 265.93(f) [3745-65-93(F)]	<u>✓</u>	—		
10. Has an outline of a groundwater quality assessment program been prepared? 265.93(a) [3745-65-93(A)]	<u>✓</u>	—		Assessment plan developed but currently n
a) Does it describe a program capable of determining:				
1) Whether hazardous waste or hazardous waste constituents have entered the groundwater?	<u>✓</u>	—		
2) The rate and extent of migration of hazardous waste or hazardous waste constituents in groundwater?	<u>✓</u>	—		
3) Concentrations of hazardous waste or hazardous waste constituents in groundwater?	<u>✓</u>	—		

Yes No Unknown Waived

b) After the first year of monitoring, have at least four replicate measurements of each indicator parameter been obtained for samples taken for each well? 265.93(b) [3745-65-93(B)]

✓

— —

Waiting on results
of newly installed
upgradient wells

1) Were the results compared with the initial background means from the upgradient well(s) determined during the first year?

— N/A —

(i) Was each well considered individually?

— N/A —

(ii) Was the Student's t-test used (at the 0.01 level of significance?)

— N/A —

2) Was a significant increase (or pH decrease as well) found in the:

Waiting on results
see b(2)

(i) Upgradient wells (If "Yes", Compliance Checklist A-2 must also be completed.) [3745-65-93(C)(1)]

— N/A —

(ii) Downgradient wells

— N/A —

11. Have records been kept of analyses for parameters in 265.92(c) and (d) [3745-65-92(C) and (D)]? 265.94(a)(1) [3745-65-94(A)(1)]

✓

— —

12. Have records been kept of groundwater surface elevations taken at the time of sampling for each well? 265.94(a)(1) [3745-65-94(A)(1)]

✓

— —

If "Yes", owner or operator must obtain, split, and analyze additional samples from the wells where a significant difference was detected. If the difference is confirmed, the Director should be notified in writing within 7 days and a groundwater assessment plan within 15 days. [3735-65-93(C)(2) and (D)(2)(3)]

13. Have records been kept of required elevations in 265.93(b) [3745-65-93(B)]? 265.94(a)(1) [3745-65-94(A)(1)]

✓

— —

14. Have the following been submitted to the Regional Administrator: 265.94(a)(2) [3745-65-94(A)(2)]

a) Initial background concentrations of parameters listed in 265.92(b) [3745-65-92(B)] within 15 days after completing each quarterly analysis required during the first year?

— ✓ —

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b) For each well, have any parameters whose concentrations or values have exceeded the maximum contaminant levels allowed in drinking water supplied been separately identified?

YesNoUnknownWaived✓

—

c) Annual reports including: [3745-65-94(A)(2)]

1) Concentrations or values of parameters used as indicators of groundwater contamination for each well along with required evaluations under 265.93(b) [3745-65-93(B)]?

✓

—

2) Any significant differences from initial background values in upgradient wells separately identified?

✓

—

3) Results of the evaluation of groundwater surface elevations?

✓

—

Comments: Subpart F